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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

Docket Nos. 50-282
and 50-306

FEB 9 1973

Northern States Power Company
ATTN: Mr. A. V. Dienhart
Vice President - Engineering
414 Nicollet Avenue
Minneapolis, Minnesota 55401

Gentlemen:

Our preliminary review of Amendment 28 to the Final Safety Analysis Report for the Prairie Island Nuclear Generating Plant, Units 1 and 2 indicates that additional information is needed to complete our review of a postulated rupture, outside of containment, of a pipe carrying high energy fluid. Amendment 28 provides part of the information requested in our letter of December 12, 1972, but it does not respond to all applicable requests (e.g., Request Nos. 9.29.13, 9.29.14, 9.29.15, 9.29.16, 9.29.18, and 9.29.20). Responses to all requests and a description of proposed modifications as indicated in the enclosure are required for our review.

We understand, based on conversations with Mr. E. C. Ward, that modifications for Unit 1 are expected to be completed by July 1, 1973, and that you desire to begin startup tests leading to power operation shortly thereafter. There are several remaining licensing milestones to be achieved before issuance of an operating license can be considered for the Prairie Island plant. These milestones are a report by the AEC's, supplements to the staff's Safety Evaluation Report, a Final Environmental Statement, and in the event of a public hearing, an initial decision by an Atomic Safety and Licensing Board regarding radiological and environmental matters.

The AEC will take appropriate measures to expedite the decision-making process with respect to your application, consistent with satisfaction of the public interest considerations involved in that process. We expect your Company to do the same. Your response to the requests for information and the evaluations by the staff and ACRS of proposed plant modifications to cope with a postulated high energy pipe rupture is on the critical path to the prospective licensing decision date. Your complete and early response to these requests for information is required to achieve an early prospective decision date regarding an operating license.

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REQUEST FOR ADDITIONAL INFORMATION
NORTHERN STATES POWER COMPANY
PRAIRIE ISLAND NUCLEAR-GENERATING PLANT
UNITS 1 AND 2
DOCKET NOS. 50-282 AND 50-306

The following is typical of the information needed to continue the staff review of proposed plant modifications to cope with postulated ruptures outside containment of pipes carrying high-energy fluid.

1. Provide descriptions and sketches of proposed modifications, including (a) structural walls and blow out panels for compartments where unprotected design basis pipe ruptures are assumed to occur, (b) guard pipes used to protect the facility from design basis pipe ruptures, (c) guard pipes or barriers used to protect required equipment from jet impingement of fluid from design basis cracks, and (d) seals and closures for doorways or other openings to compartments requiring environmental protection.
2. Provide descriptions of the locations of compartments containing required equipment relative to the compartments through which high-energy fluid pipes pass.
3. Provide results of preliminary design analyses of the pressure and temperature in those compartments that are expected to have adverse atmospheres caused by design basis pipe ruptures and cracks.
4. Provide results of analyses to verify that the equipment proposed to mitigate the consequences of the accident and provide safe plant shutdown has adequate capacity, assuming a single active failure.
5. Provide descriptions of electrical equipment and instruments to verify that installed equipment either meets environmental qualification test requirements or it can be qualified to meet requirements.
6. Provide the results of stress analyses of high-energy fluid pipe systems, including the calculated stresses at the selected design basis break locations and at other locations in the piping system where stresses are within 10% of the design-basis break location stresses.

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States Power Company

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provide within 7 days after receipt of this letter the preliminary design information regarding proposed modifications will be available for our review. Also provide when final design descriptions and evaluations modifications will be available for our review.

Sincerely,

A. Giambusso
A. Giambusso, Deputy Director
for Reactor Projects
Directorate of Licensing

Enclosures:
as stated above

By:
George E. Troxbridge
Sloan, Pittman, Potts & Troxbridge
219 17th Street, NW
Washington, D. C.

Mr Claeson

This is a confirmation letter of what we sent to you the other day.

ECW

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